Exhibit 300: Capital Asset Summary

Part I: Summary Information And Justification (All Capital Assets)

Section A: Overview & Summary Information

Date Investment First Submitted: 2011-02-25
Date of Last Change to Activities: 2012-08-23
Investment Auto Submission Date: 2012-02-27
Date of Last Investment Detail Update: 2012-02-27
Date of Last Exhibit 300A Update: 2012-08-23
Date of Last Revision: 2012-08-23

Agency: 021 - Department of Transportation **Bureau:** 12 - Federal Aviation Administration

Investment Part Code: 01

Investment Category: 00 - Agency Investments

1. Name of this Investment: FAAXX778: Next Generation Air/Ground Communications (NEXCOM) Segment 2

2. Unique Investment Identifier (UII): 021-097274776

Section B: Investment Detail

1. **Provide a brief summary of the investment, including a brief description of the related benefit to the mission delivery and management support areas, and the primary beneficiary(ies) of the investment. Include an explanation of any dependencies between this investment and other investments.**

The Next Generation Air/Ground Communications (NEXCOM) Segment 2 program is the second phase of NEXCOM whose mission is to modernize aging air to ground (A/G) equipment infrastructure used for air traffic control (ATC). NEXCOM Segment 2 addresses the air traffic voice channels for aircraft flying in the Terminal and Flight Services environment (below 24,000 feet) of the National Airspace System (NAS). ATC is provided in the NAS by a combination of control and remote facilities. Control facilities are assigned specific airspace responsibilities over which to provide ATC services. Associated with each control facility are remote communications facilities (RCFs) where radios are located. Remote transmitter/receiver (RTR) locations provide a service for Terminal airspace. In some instances, the FAA retains control of remote communications outlets (RCOs) associated with flight services control facilities (AFSS/FSS). RCOs provide flight planning and advisory services. NEXCOM Segment 2 will focus on replacing air to ground voice communication radios at 1814 RTR and RCO sites. The program expects completion by 2027. The modernization of key A/G elements, such as VHF (Very High Frequency) and Ultra-High Frequency (UHF) radios, antennas and cabling, under NEXCOM Segment 2 will ensure the continued operation of the ATC system. NEXCOM Segment 2 received a JRC Authorization to Proceed in December 2010 which allowed for installation of NEXCOM Segment 1a radios

at Terminal sites when completed in parallel with En Route sites. NEXCOM Segment 2 received a JRC Final Investment Decision in September 2011. NEXCOM Segment 2's program management team and contract officers will award the prime radio contract in April 2012. NEXCOM Segment 2 has dependency relationships with the FTI, DATACOMM, NVS, and NEXCOM Segment 1a investments.

2. **How does this investment close in part or in whole any identified performance gap in support of the mission delivery and management support areas? Include an assessment of the program impact if this investment isn't fully funded.**

NEXCOM Segment 2's new VHF and UHF radio technologies support the FAA's goal to reduce congestion and increase economic competiveness, which it does by making more efficient use of existing radio spectrum and replacing older, unrepairable radios. The older radios (GRR/GRTs) were purchased between 1965 and 1980, and installed in the late 1960s and 1970s with a predicted life cycle of 20 years. As these radios age, the likelihood of failure increases and given the size of the installed base, this scenario can tax the National Airspace System's (NAS's) resilience. Other operational radios were installed between 1995 and 2005, with a predicted life cycle of 10 years. Currently, failed older radios are repaired with components cannibalized from out of service units. NEXCOM Segment 2 will insert the latest radio technology into the NAS. By replacing these old radios and their higher failure rates with the newer VHF and UHF radios, NEXCOM Segment 2 is reducing the future increase in O&M costs, which is a cost avoidance. Additionally, with more planes flying during peak periods and Air Traffic Controllers becoming empowered to work more efficiently, more radio spectrum will be needed for Air Traffic Control (ATC) communications; either for more voice, data, Next Generation Air Transportation System (NextGen) technologies or a combination of these. If the NEXCOM Segment 2 program is not fully funded, it will not complete on time by 2027. This will cause a continued stress on the current older radios as they become unrepairable with obsolete parts.

3. **Provide a list of this investment's accomplishments in the prior year (PY), including projects or useful components/project segments completed, new functionality added, or operational efficiency achieved.**

In December 2010, NEXCOM Segment 2 received a JRC Authorization to Proceed. This Authorization allowed Engineering Services to start NEXCOM Segment 2 implementation. To date, over twenty Terminal facilities (RTRs and RCOs) have been completed and many others are in the planning and installations stages. There has been a quick learning curve for Engineering Services as skilled installation crews are retained during the gradual transition from NEXCOM Segment 1a to NEXCOM Segment 2. Additionally NEXCOM Segment 2 is currently in the evaluation process of prime contract award as the program management team reviews multiple radio vender proposals that were submitted to the FAA after the FAA released the SIR. This radio contract will serve as the prime contract for the investment and is scheduled for award in September 2011. The finalized NEXCOM Segment 2 cost and schedule model will be completed and baselined in 2011 as NEXCOM Segment 2 will receive its FID in September 2011.

4. **Provide a list of planned accomplishments for current year (CY) and budget year (BY).**

With the prime radio contractor selected in September 2011, the NEXCOM Segment 2 team will spend a large majority of FY2012 working with the selected radio vendor to ensure radio specifications are met and the radios work properly after they are installed. In April 2012, NEXCOM Segment 2 will complete factory acceptance testing (FAT) with the prime contractor. Operational test & evaluation (OT&E) is currently scheduled for completion in September 2012. Additionally, over five hundred radios (from the NEXCOM Segment 1a radio contract) will be installed at RTR and RCO Terminal sites during FY2012. NEXCOM Segment 2 will accomplish even more in FY2013. In December 2012, the NEXCOM program management team and the prime contractor will complete site acceptance testing and field familiarization. In March 2013, there will be an In-Service Decision and the NEXCOM Segment 2 radio procurement schedule will be determined. Additionally, over one thousand radios will be installed at RTR and RCO Terminal sites, as NEXCOM Segment 2 plans to have completed more than one hundred Terminal sites by the end of September 2013.

5. **Provide the date of the Charter establishing the required Integrated Program Team (IPT) for this investment. An IPT must always include, but is not limited to: a qualified fully-dedicated IT program manager, a contract specialist, an information technology specialist, a security specialist and a business process owner before OMB will approve this program investment budget. IT Program Manager, Business Process Owner and Contract Specialist must be Government Employees.**

2011-09-20

Section C: Summary of Funding (Budget Authority for Capital Assets)

1.

Table I.C.1 Summary of Funding

	PY-1 & Prior	PY 2011	CY 2012	BY 2013
Planning Costs:	$0.0	$0.0	$0.0	$0.0
DME (Excluding Planning) Costs:	$23.0	$18.9	$17.0	$25.0
DME (Including Planning) Govt. FTEs:	$3.1	$3.9	$4.9	$4.1
Sub-Total DME (Including Govt. FTE):	$26.1	$22.8	$21.9	$29.1
O & M Costs:	$0.0	$0.0	$0.1	$0.2
O & M Govt. FTEs:	$0.2	$0.4	$0.9	$0.7
Sub-Total O & M Costs (Including Govt. FTE):	$0.2	$0.4	$1.0	$0.9
Total Cost (Including Govt. FTE):	$26.3	$23.2	$22.9	$30.0
Total Govt. FTE costs:	$3.3	$4.3	$5.8	$4.8
# of FTE rep by costs:	25	32	41	28
Total change from prior year final President's Budget ($)		$0.8	$-0.6	
Total change from prior year final President's Budget (%)		3.50%	-2.73%	

2. If the funding levels have changed from the FY 2012 President's Budget request for PY or CY, briefly explain those changes:

The NEXCOM Segment 2 program budget profile was updated and baselined at the September 2011 Final Investment Decision and is reflected in this Exhibit 300.

Section D: Acquisition/Contract Strategy (All Capital Assets)

Table I.D.1 Contracts and Acquisition Strategy

Contract Type	EVM Required	Contracting Agency ID	Procurement Instrument Identifier (PIID)	Indefinite Delivery Vehicle (IDV) Reference ID	IDV Agency ID	Solicitation ID	Ultimate Contract Value ($M)	Type	PBSA ?	Effective Date	Actual or Expected End Date
Awarded		DTFAW10R00044									
Awarded		DTFAWA09D00062									
Awarded		DTFA0102CA0016									
Awarded		DTFA0101D03009									
Awarded		DTFAWA10A00108									

2. If earned value is not required or will not be a contract requirement for any of the contracts or task orders above, explain why:
The NexCom Segment II program was baselined in September 2011 and is implementing a program level EVMS, consistent with FAA Acquisition Management Policy.

Exhibit 300B: Performance Measurement Report

Section A: General Information

Date of Last Change to Activities: 2012-08-23

Section B: Project Execution Data

Table II.B.1 Projects

Project ID	Project Name	Project Description	Project Start Date	Project Completion Date	Project Lifecycle Cost ($M)
1	NEXCOM Segment 2 JRC Final Investment Decision	NEXCOM will go to the FAA Joint Resources Council (JRC) for its Final Investment Decision (FID) in September 2011.			
2	NEXCOM Segment 2 FY11 Q4 Activities after Authorization to Proceed	NEXCOM will install new Very High Frequency (VHF) and Ultra High Frequency (UHF) radios at Terminal Remote Transmitter/Receiver (RTR) and Remote Communications Outlet (RCO) locations in the three different Service Areas. NEXCOM Segment 2 received a JRC Authorization to Proceed in December 2010. This is a pre-FID project.			
3	NEXCOM Segment 2 FY12 Activities	NEXCOM will install new VHF and UHF radios at Terminal RTR and RCO locations in the three different Service Areas. This is a post-FID project.			

Activity Summary

Roll-up of Information Provided in Lowest Level Child Activities

Activity Summary

Roll-up of Information Provided in Lowest Level Child Activities

Project ID	Name	Total Cost of Project Activities ($M)	End Point Schedule Variance (in days)	End Point Schedule Variance (%)	Cost Variance ($M)	Cost Variance (%)	Total Planned Cost ($M)	Count of Activities
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1	NEXCOM Segment 2 JRC Final Investment Decision							
2	NEXCOM Segment 2 FY11 Q4 Activities after Authorization to Proceed							
3	NEXCOM Segment 2 FY12 Activities							

Key Deliverables

Project Name	Activity Name	Description	Planned Completion Date	Projected Completion Date	Actual Completion Date	Duration (in days)	Schedule Variance (in days)	Schedule Variance (%)
1	Final Investment Decision	Final Investment Decision (FID): Program receives Joint Resource Council Final Investment Decision from FAA Joint Resource Council Board and becomes a major investment program. (APB Milestone)	2011-09-20	2011-09-30	2011-09-30	6	-10	-166.67%
1	Finalize Investment Analysis Decision Documentation	Complete all documentation needed for an Investment Analysis Decision, including cost model, schedule, and OMB Exhibit 300. This is only for pre-FID	2011-09-30	2011-09-22	2011-09-22	91	8	8.79%

Key Deliverables

Project Name	Activity Name	Description	Planned Completion Date	Projected Completion Date	Actual Completion Date	Duration (in days)	Schedule Variance (in days)	Schedule Variance (%)
1	Prime Contract Award	Contract Awarded to vendor: Contract is approved and signed by the appropriate Contracting Officer. (APB Milestone)	2011-09-30	2012-04-20	2012-04-20	91	-203	-223.08%

Section C: Operational Data

Table II.C.1 Performance Metrics

Metric Description	Unit of Measure	FEA Performance Measurement Category Mapping	Measurement Condition	Baseline	Target for PY	Actual for PY	Target for CY	Reporting Frequency
Provide cumulative Mean Time Between Failure for NexCom Very High Frequency radios.	Hours	Customer Results - Service Coverage	Over target	11000.000000	45000.000000	50000.000000	45000.000000	Semi-Annual
Provide Mean Time Between Depot Returns for NexCom Very High Frequency Radio receivers.	Hours	Customer Results - Service Coverage	Over target	10000.000000	35000.000000	47000.000000	35000.000000	Semi-Annual
Provide failure rate per year for NexCom Very High Frequency radio receivers.	Percentage	Technology - Efficiency	Under target	5.000000	3.500000	1.520000	3.000000	Semi-Annual
Provide number of NexCom Very High Frequency radios (receivers and transmitters) returned to Ops stock.	Radios	Technology - Reliability and Availability	Under target	0.000000	1000.000000	928.000000	950.000000	Monthly
Provide number of NexCom Ultra High Frequency radios (receivers and transmitters) returned to Ops stock.	Radios	Technology - Reliability and Availability	Under target	0.000000	500.000000	363.000000	500.000000	Monthly